

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P854043

Luminaire Tested: SQ2-PH1-100U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

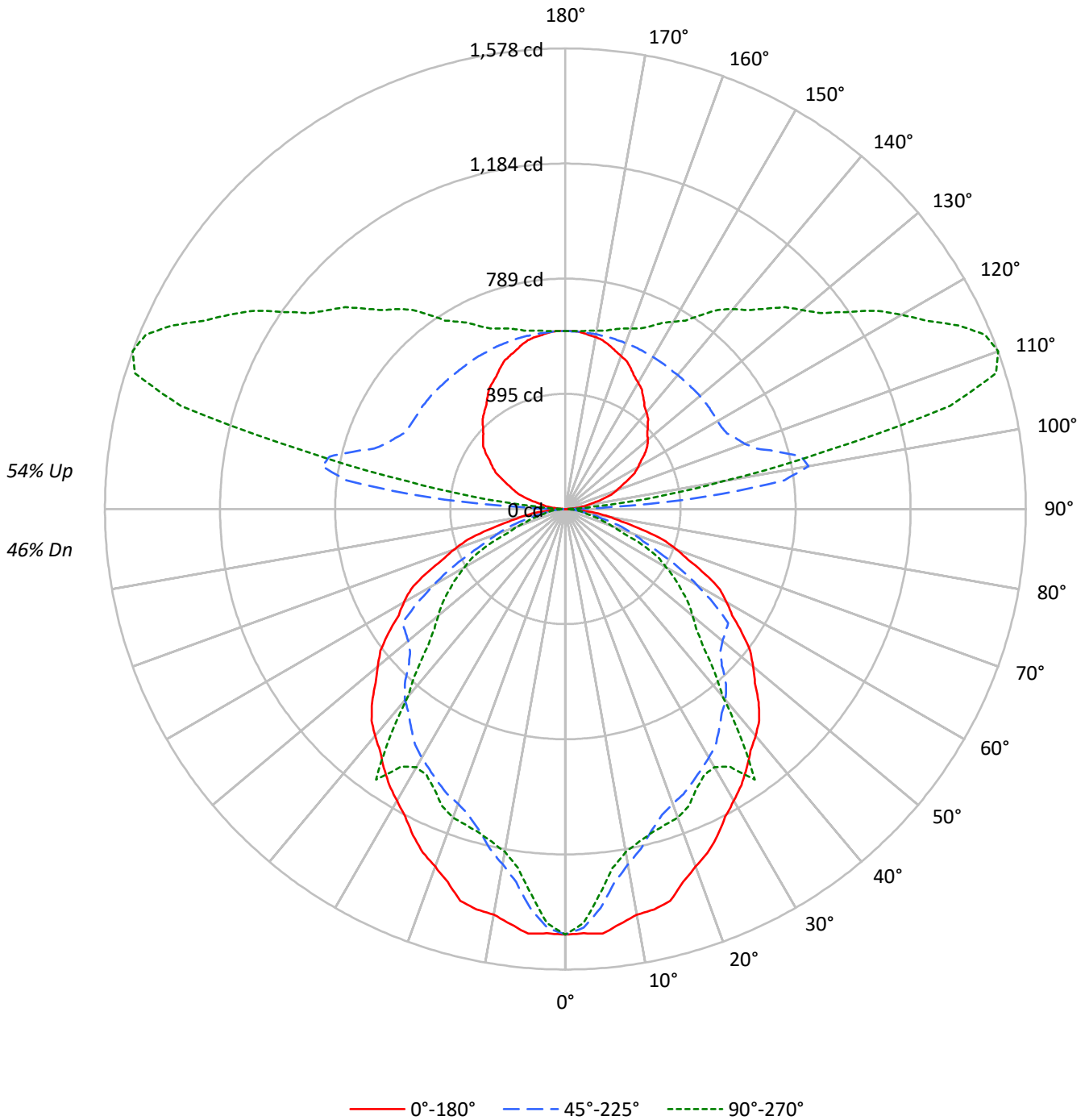
Test Method: LM-79-2019  
Report Number: P854043  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-100U-075D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7021.1 lumens  
Efficiency: N/A  
Efficacy: 118.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 59.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20				
RC	80					70					50					30				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46		
1	97	93	89	86	89	85	82	79	71	69	67	59	57	55	47	46	45	39		
2	89	81	75	70	81	75	70	65	63	59	56	52	49	47	41	39	38	33		
3	81	71	64	59	74	66	60	55	55	51	47	46	42	39	37	34	32	28		
4	74	63	56	50	68	58	52	46	49	44	40	41	37	34	33	30	28	24		
5	68	56	48	42	62	52	45	40	44	39	35	37	33	29	30	27	24	21		
6	62	51	43	37	57	47	40	35	40	34	30	33	29	26	27	24	21	18		
7	58	46	38	32	53	42	35	30	36	30	26	30	26	23	24	21	19	16		
8	54	41	34	28	49	38	32	27	33	27	24	27	23	20	22	19	17	15		
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	15	13		
10	47	35	27	23	43	32	26	21	28	22	19	23	19	16	19	16	14	12		

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	23544	23544	23544
5°	23679	22263	21520
10°	23135	20267	19562
15°	23238	19064	19179
20°	22409	18476	19333
25°	21998	18390	18884
30°	21522	18340	19039
35°	21358	18132	22316
40°	21376	18014	17692
45°	21384	17328	15239
50°	21084	17668	14290
55°	20816	19175	13709
60°	20609	16801	12859
65°	20248	13624	11186
70°	19124	11594	7992
75°	17049	8740	6057
80°	13928	5672	5672
85°	8744	5132	3853

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 21384 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.3	1.8
10°-20°	337.5	4.8
20°-30°	494.9	7.0
30°-40°	599.3	8.5
40°-50°	589.4	8.4
50°-60°	513.0	7.3
60°-70°	356.7	5.1
70°-80°	169.1	2.4
80°-90°	38.4	0.5
90°-100°	254.6	3.6
100°-110°	770.1	11.0
110°-120°	751.8	10.7
120°-130°	614.3	8.7
130°-140°	501.5	7.1
140°-150°	390.4	5.6
150°-160°	281.4	4.0
160°-170°	172.3	2.5
170°-180°	58.2	0.8
0°-30°	960.7	13.7
0°-40°	1560.0	22.2
0°-60°	2662.4	37.9
0°-90°	3226.5	46.0
90°-120°	1776.6	25.3
90°-150°	3282.7	46.8
90°-180°	3795.0	54.1
0°-180°	7021.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1458	1458	1458	1458	1458	
5°	1461	1460	1374	1330	1328	137
15°	1390	1238	1140	1132	1147	388
25°	1235	1050	1032	1064	1060	568
35°	1084	876	920	999	1132	679
45°	936	694	759	785	667	720
55°	740	540	681	491	487	661
65°	530	371	357	293	293	521
75°	273	189	140	100	97	290
85°	47	31	28	22	21	63
90°	0	2	12	7	6	3
95°	32	100	480	178	112	37
105°	134	188	756	1436	1365	141
115°	238	284	612	1266	1486	236
125°	333	370	603	1000	1176	296
135°	399	441	599	862	970	309
145°	466	501	599	742	811	292
155°	531	549	603	665	690	244
165°	581	588	606	629	636	164
175°	608	608	609	614	612	58
180°	610	610	610	610	610	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1458.2	1458.2	1458.2	1458.2	1458.2
2.5°	1454.9	1470.1	1436.0	1422.7	1420.5
5°	1461.0	1459.6	1373.6	1330.5	1327.8
7.5°	1434.4	1392.3	1289.5	1242.0	1239.8
10°	1411.1	1347.3	1236.2	1193.2	1193.2
12.5°	1405.5	1304.8	1192.9	1161.2	1167.7
15°	1390.2	1238.3	1140.5	1132.5	1147.4
17.5°	1339.7	1176.1	1099.7	1117.9	1135.2
20°	1304.2	1142.8	1075.3	1109.0	1125.2
22.5°	1274.3	1110.6	1057.5	1094.4	1103.0
25°	1234.8	1050.3	1032.3	1064.1	1060.0
27.5°	1187.7	995.0	1007.0	1026.5	1028.9
30°	1154.4	961.7	983.7	1003.5	1021.2
32.5°	1122.2	923.0	958.2	1005.2	1045.6
35°	1083.6	876.0	919.9	999.2	1132.2
37.5°	1043.1	820.6	881.3	948.0	990.4
40°	1014.2	780.9	854.7	937.1	839.4
42.5°	983.2	749.8	814.7	921.1	756.2
45°	936.5	693.7	758.9	785.4	667.4
47.5°	881.6	650.2	721.2	654.9	608.8
50°	839.4	621.0	703.4	598.7	568.9
52.5°	798.4	590.8	691.2	552.3	532.2
55°	739.5	540.1	681.2	491.1	487.0
57.5°	677.1	488.5	602.4	437.8	444.8
60°	638.2	455.1	520.3	406.3	398.2
62.5°	597.2	422.7	443.7	366.4	358.2
65°	530.0	371.3	356.6	292.8	292.8
67.5°	456.2	317.8	288.9	239.6	207.0
70°	405.1	283.0	245.6	191.0	169.3
72.5°	350.8	246.0	201.2	156.5	131.5
75°	273.3	189.2	140.1	99.8	97.1
77.5°	197.6	136.3	94.3	74.1	74.4
80°	149.8	103.7	61.0	59.7	61.0
82.5°	105.4	71.3	45.5	47.5	47.7
85°	47.2	30.9	27.7	22.2	20.8
87.5°	10.0	9.3	7.8	6.9	6.7
90°	0.0	1.9	11.5	6.7	5.7
92.5°	10.7	43.3	155.4	51.6	37.1
95°	31.6	99.9	480.5	177.5	112.0
97.5°	61.1	127.1	757.3	501.1	305.1
100°	79.4	144.0	846.1	818.0	549.4
102.5°	100.1	162.4	827.8	1147.3	914.7
105°	134.0	188.3	756.2	1436.0	1364.9
107.5°	166.2	218.0	687.2	1464.6	1547.0
110°	187.6	237.2	652.8	1428.6	1578.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	208.3	256.4	632.1	1368.3	1557.7
115°	238.3	284.2	611.6	1265.6	1486.5
117.5°	268.2	311.6	604.4	1169.4	1395.5
120°	288.1	329.3	602.1	1113.3	1330.5
122.5°	306.5	345.4	602.1	1063.9	1264.6
125°	333.1	369.6	603.0	999.5	1176.3
127.5°	354.7	392.5	602.1	950.8	1101.7
130°	368.5	407.8	602.1	922.9	1059.6
132.5°	380.8	420.8	601.3	897.4	1023.6
135°	399.1	441.3	599.2	862.0	969.6
137.5°	419.6	459.7	599.2	824.1	923.8
140°	432.6	471.9	599.2	799.5	894.0
142.5°	445.7	483.5	598.4	777.0	859.5
145°	466.1	500.8	599.2	741.5	810.7
147.5°	486.6	516.0	600.3	712.2	765.3
150°	499.6	526.8	601.1	695.9	740.8
152.5°	511.9	536.0	601.9	681.9	718.6
155°	531.2	549.0	603.0	664.8	690.1
157.5°	548.1	562.5	604.2	652.2	669.8
160°	558.0	570.2	604.9	644.5	657.6
162.5°	568.0	577.1	605.7	637.5	648.4
165°	581.0	587.5	605.9	629.0	636.5
167.5°	592.1	595.5	607.0	622.4	625.6
170°	598.2	600.1	607.8	619.3	620.2
172.5°	602.1	603.2	607.8	616.2	616.4
175°	607.8	607.8	608.8	613.5	611.6
177.5°	610.5	609.7	608.9	611.2	609.7
180°	609.7	609.7	609.7	609.7	609.7

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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	17.92	18.74	18.91	19.74	21.07	16.59	17.41	17.58	18.41	19.74
	3H	19.94	20.67	20.94	21.68	23.03	17.62	18.35	18.62	19.37	20.72
	4H	20.67	21.36	21.68	22.38	23.73	17.83	18.53	18.85	19.54	20.90
	6H	21.15	21.79	22.18	22.81	24.18	17.97	18.61	19.00	19.63	21.00
	8H	21.27	21.88	22.31	22.92	24.28	18.00	18.61	19.04	19.65	21.01
	12H	21.32	21.89	22.35	22.92	24.31	18.00	18.58	19.04	19.61	21.00
4H	2H	18.29	18.98	19.31	20.00	21.35	17.23	17.92	18.25	18.93	20.29
	3H	20.39	20.97	21.42	22.01	23.38	18.40	18.98	19.43	20.02	21.39
	4H	21.20	21.73	22.24	22.77	24.16	18.67	19.20	19.71	20.24	21.63
	6H	21.78	22.24	22.83	23.30	24.69	18.88	19.33	19.93	20.39	21.78
	8H	21.95	22.38	23.00	23.43	24.83	18.94	19.36	19.99	20.41	21.82
	12H	22.02	22.40	23.09	23.47	24.88	18.94	19.32	20.01	20.39	21.80
8H	4H	21.22	21.64	22.27	22.69	24.10	18.89	19.31	19.94	20.36	21.77
	6H	21.87	22.21	22.94	23.31	24.71	19.16	19.51	20.23	20.60	22.00
	8H	22.09	22.40	23.17	23.47	24.90	19.26	19.57	20.34	20.64	22.07
	12H	22.20	22.47	23.29	23.54	25.01	19.30	19.57	20.39	20.64	22.11
12H	4H	21.17	21.55	22.23	22.61	24.02	18.88	19.26	19.95	20.33	21.74
	6H	21.84	22.15	22.92	23.22	24.64	19.19	19.49	20.27	20.57	21.99
	8H	22.07	22.34	23.15	23.41	24.87	19.30	19.57	20.38	20.64	22.11